IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE PCT NATIONAL STAGE APPLICATION OF
ELIZABETH HARUMI KOBARA PESTELL ET AL

Group Art Unit: **1796**
Examiner: **Thuy-Ai N. Nguyen**
Confirmation No. 7040

INTERNATIONAL APPLICATION NO.
PCT/EP2005/051133
FILED: **March 14, 2005**
FOR: FUNGICIDAL DETERGENT
COMPOSITIONS
U.S. APPLICATION NO: **10/593,227**
35 USC 371 DATE: September 18, 2006

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPEAL BRIEF

Sir:

This Appeal is from the Rejection mailed from the PTO on May 12, 2010.

A Notice of Appeal was filed electronically on September 10, 2010. The Appellants submit a two month extension of time making this Appeal Brief timely up to and including January 10, 2011. The Brief is accompanied by the requisite fee under 41.20.

The Commissioner is authorized to charge any fee due, or credit any overcharge, as a result of this Amendment to Deposit Account No. 03-1935.

(1) REAL PARTY OF INTEREST

The real party of interest, by virtue of an asset transfer agreement between Ciba Corporation and BASF SE of July 1, 2009 is:

BASF SE
Carl-Bosch-Strasse 38
6700 Luswigshafen
Rheinland-Pfalz D-67056, Germany

The application was originally assigned to Ciba Specialty Chemicals Corp. in an assignment recorded in the U.S. Patent and Trademark Office, December 28, 2007, reel/frame 020315/0967.

Ciba Specialty Chemicals Corp. changed its name to Ciba Corp. November 1, 2007 in the state of Delaware.

(2) RELATED APPEALS AND INTERFERENCES

Appellants are not aware of any related appeals and interferences for the above application.

(3) STATUS OF THE CLAIMS

Claims 1-2, 4-8, 13-15 and 21 are pending in the application.
Claims 1-2, 4-8, 13-15 and 21 are rejected.

(4) STATUS OF AMENDMENTS

The claims were last amended on April 28, 2010 wherein new claim 21 was added. This new claim was entered. Appellants note that the last set of amendments contained an error. Claim 20 was cancelled as well as entered as new. The second claim 20 should have been entered as claim 21. The set of claims in appendix (8) now refers correctly to claim 21.

Claims 1-2, 4-8, 13-15 and 21 are the only claims pending with status identifiers "previously presented". Original claims 3, 9-12 and 16-20 were cancelled.

This brings up to date the status of the claims. A clean copy of the claims is attached in the (8) Claims Appendix.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Claim 1 is the only independent claim. All other pending claims depend from claim 1 and thus contain all its limitations.

Claim 1 is directed to a method for the fungicidal treatment of textile fiber material comprising contacting said textile filber materials in a domestic washing process with a detergent composition comprising a) 0.01 to 90% by weight of a thiazolyl benzimidazole of formula 1, b) 1 to 80 % by weight of one or more synthetic detergents or of a soap or combinations thereof; optionally ingredients c)-h) i) tap water or deionised water ad 100% and k) an antimicrobial agent of 2- hydroxyl-diphenyl ethers of specific formulae (4) or (5) and wherein said textile fiber materials are treated in normal washing machines and the weight of the textile material to water is from 1:4 to 1:40.

Claim 21 depends from claim 1 but more narrowly defines the wt. percents of components a) and k) to more closely reflect the showing presented in the declaration. Support for claim 21 by the disclosure on page 9, last paragraph (0.01 to 5% of formula (1)) and Example 6, formulations 12a through 12l wherein compound of formula 102 is 0.9 weight percent.

Basis for claim 1 and components a) through f) may be found on page 2, lines 5-15. The component b) may be anionic, non-ionic, or zwitterionic and amphoteric synthetic detergents. Support for the thiazolyl benzimidazole, formula (1) can be found at the bottom of page 1.

The optional component c) 0-75% of a builder is supported by the disclosure on page 2,line 9. The builders are further defined on page 5, last paragraph on the page.

The optional component d) 0-30% by weight of a peroxide is supported by the disclosure on page 2, line 10. The peroxides are further defined on page 6, third paragraph.

The component e) 0-10 % by weight of a bleach activator is supported on page 2, line 11. The bleach activators are further defined on page 6, last paragraph.

The optional component f) 0 to 50% by weight of one or more hydroptropic agents is supported on page 2, line 12. The hydrotropic agents are further defined on page 8, second paragraph.

The optional component g) 0 to 50% by weight of an alcohol is supported on page 2, line 13. The alcohols are further defined on page 13, third paragraph.

The optional component h) 0 to 80 % by weight of a fabric softening components is supported on page 2, line 14.

The textile fiber materials are treated in normal washing machines and the weight of the textile material to water is from 1:4 to 1:40. Support for these claim limitation may be found on pages 13, last two lines and on page 15, line 7.

Enzymes produced by fungus can lead to fabric deterioration and rot. The fungicidal action and dust mites growth control is more and more a required demand of solid textile washing formulations. See page 1, lines 16-20.

The present method destroys fungi present on the washing material in the dilute liquor during the normal washing procedure. At the same time, antifungal properties are imparted to the washed textile material, that is to say bacteria that get on the textile material while it is being worn are destroyed.

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 2, 4-7 and 14-15 are rejected under 35 USC 103(a) as being unpatentable over Ghosh, Us 2004/0261196 in view of Model, US, 903, 007.

Claims 8 and 13 are rejected under 35 USC 103(a) as being unpatentable over Ghosh, Us 2004/0261196 and Model, US 3,903,007 as applied to claim 1 above and further in view of Majeti, US 2003/0212232.

Claim 20 is rejected under 35 USC 103(a) as being unpatentable over Ghosh and Model, US 3,903,007 as applied to claim 1 above in view of Apostolatos, US 4, 118,332.

(7) ARGUMENTS

35 USC 103(a)

Claims 1, 2, 4-7, 9-10 and 14-15 are rejected under 35 USC 103(a) as being unpatentable over Ghosh, US 2004/0261196 in view of Model, US 3,903,007.

Examiner is of the opinion that Ghosh, '196 teach the method of cleaning the fabric articles, wherein the conventional cleaning is carried out with a large amount of water at the consumer's home or other place [0004]. Examiner believes Ghosh to teach a compositions comprising antimicrobial agent 2-(4"-thiazolyl) benzimidaole [0101] and antimicrobial agent 2, 4, 4' -trichloro-2 'hydroxyl diphenyl ether [0102].

Differences between the cited art and present claim limitations

Examiner agrees that Ghosh does not teach a method of cleaning and the ratio of the textile fiber materials to water in a washing machine. Examiner relies on Model to teach detergent compositions comprising hydroxyl-diphenyl ether and method of using, wherein the ratio of fabric to water is 1:20. Examiner believes it would have been obvious to one of ordinary skill in the art to use the method of cleaning and the ratio of Model in the teachings of Ghosh.

Appellants point out that Ghosh suggests a great many antimicrobial gents suitable for fabric are. See paragraphs [101 and [0102]. Ghosh makes no suggestion at all to combine both the thiazolyl benzimidazole and diphenyl ethers specifically claimed in claim 1.

For rejections under 35 U.S.C. § 103(a) based upon a combination of prior art elements, in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007), the Supreme Court stated that a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Rejections on obviousness

grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.

Even if it were assumed *arguendo* that a *prima facie* case of obviousness has been established in view of the cited art, a *prima facie* case of obviousness can be rebutted by a showing of unexpected results. (See, for example, *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963)). In this regard, it is respectfully submitted that the present specification provides that it has now been found, surprisingly, that when the compound of formula (1) and ethers of formulae (4) or (5) are combined that less of each antimicrobial active may be used when combined at lower levels to achieve acceptable antifungal and antimicrobial effects.

Appellants have previously submitted a 132 declaration directed to a showing of unexpected benefits obtained from the combination of the compound of formula (1) and ether of formulae (5).

Declaration under 1.132

Cotton fabric is washed with a US Standard Liquid Detergent containing 0.6 % TINOSAN® HP 100 (formula 5) show excellent bactericidal activity. Log reductions of > 5 and 4.2 relative to the Placebo Liquid Detergent are observed against the test strain Eschericia coli ATCC 10536.

Cotton fabric washed with a US Standard Liquid Detergent containing 0.2% TINOSAN® Plus FG or 0.1% TINOSAN® Plus FG (formula 1) show excellent fungicidal activity. Log reductions of 1.4 and 1.1 (relative to the Placebo Liquid Detergent) against the test strain Chaetomium globosum ATCC 6205 have been shown.

The combination of 0.1% TINOSAN® Plus FG and 0.3% TINOSAN® HP 100 in a liquid detergent results in an "activity benefit" against both bacteria and fungi.

These results clearly indicate the simultaneously high activity against bacteria and fungi of a combination of 0.1% TINOSAN® Plus FC and 0.3% TINOSANN V HP 100 in a liquid detergent even at lower concentrations as compared to their individual use.

These results are important because the instantly claimed method allows formulating a detergent for use in a domestic washing process which not only cleans the textile fiber material but also prevents or reduces bacteria and fungi adverse effects.

Examiner was not persuaded by the previously submitted Declaration. Examiner states that "the evidence in the Declaration can only prove that the instant claimed invention has benefit of preventing and reducing the growth of bacteria. The evidence does not illustrate facts showing the difference between the claimed invention and the instant reference. Because Ghosh and Model disclose the same cleaning method and compositions of the claimed invention, they implicitly have the same effectiveness as that alleged by the applicant."

It is unclear to Appellants whether the Examiner is arguing that the combination of Ghosh and Model would inherently arrive at the same effectiveness even though neither reference actually teaches the specific combination presently claimed. Of course, if one skilled in the art were to select from Ghosh and Model the presently claimed combination, they would of course show the same effectiveness. But this is not what is relevant here. Neither Ghosh nor Model teach the specific combination. The existence of the elements were unquestionably known in the art. However, their existence (components a) and k) is not what is being argued here. A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.

It is the combination of elements the Appellants have selected. And the selection leads to advantages not understood or taught by either reference.

The Appellants are of the opinion that the Examiner has missed the implications of the showing. This is an obviousness rejection and one which calls for the combination of both Ghosh and Model.

Ghosh provides the reader with a rather long list of possible antimicrobial agents suitable for fabric care in paragraph [102]. 2-(4"-thiazolyl)benzimidazole and Triclosan may be chosen from this list. However, there is little direction from Ghosh to select precisely these two from a list of many.

One skilled in the art would need to select these two alternatives together and use in a domestic washing process along with a detergent.

While one skilled in the art might select both antimicrobial, it is clear that neither reference (Ghosh or Model) understood that in doing so certain advantages are achieved. The unobvious advantage being:

Simultaneously high activity against bacteria and fungi and that this high activity is accomplished in a liquid detergent at lower concentrations as compared to their individual use.

This combination shows a kind of synergism in that less of each antimicrobial active may be used when combined at lower levels to achieve acceptable antifungal and antimicrobial effects.

For example, in the bacterial testing (table at the top of page 4 of the Declaration) 0.2% of TINOSAN Plus FG is very effective at reducing bacterial growth after 24 hours and that high concentrations of (0.6%) TINOSAN HP 100 is less so. When TINOSAN Plus FG is reduced to half the wt. % and combined with 0.3% TINOSAN HP 100 an acceptable bacterial reduction of 4.3 is achieved.

During the fungi test (second table on page 4) it is clear that 0.6% TINOSAN HP 100 by itself is highly effective at reducing fungi growth. However, when the TINOSAN HP 100 is reduced by half (0.3%) but combined with TINOSAN Plus FC, a high degree of antifungal properties is still observed.

Thus the combination of TINOSAN HP 100 with TINOSAN Plus FC allows formulating a detergent for use in a domestic washing process which not only cleans the textile fiber material but also prevents or reduces infection of the material with fungi and bacteria. And further the combination succeeds in doing this at lower overall concentrations of both actives.

Appellants respectfully submit that the examiner has not really considered the Declaration and all it implies. Although, Ghosh for example teaches the use of both actives in a conventional washing process, these actives would have to have been selected from a relatively long list of actives to arrive at the present claim limitations. And even if it were obvious to make this selection (Appellants submit it is not), neither Ghosh nor Model were aware of the advantage of the selection. That is neither Ghosh nor Model could have been aware of resulting **fungi and bacterial protection and that this protection can be achieved at lower overall concentration levels than when the actives are used alone**.

Claim 8 and 13 are rejected under 35 USC 103(a) as being unpatentable over Ghosh, US 2004/0261196 and Model, US 3,903,007 as applied to claim 1 above in view of Majeti US 2003/0212232.

Examiner has applied Ghosh and Model as above but supplied Majeti to teach a composition for treating textiles and hard surfaces, wherein the composition comprises an enzyme. None of the references cited make a suggestion to combine the particle compound of formula (1) and the diphenyl ethers of component k).

However, the Appellants submit that the Declaration presently enclosed overcomes this rejection as the results shown comprising the antimicrobial of formulae 5 and the antifungal compound of formula 1 show unexpected efficacy. Not only does the combination provide antifungal and antibacterial efficacy but also is able to provide antifungal and antibacterial efficacy at lower dosages than would be expected.

Claim 21 is rejected under 35 USC 103(a) as being unpatentable over Ghosh, US 2004/0261196 and Model, US 3,903,007 as applied to claim 1 above in view of Apostolatos, US 4, 118, 332.

Examiner has relied on Apostoloatos to teach antimicrobial diphenyl either including 4, 2', 4-trichloro-2-hydroxy diphenyl ether or 4, 4'-dichloro-2-hydroxy diphenyl ether. Examiner opines that "at the time of the invention it would have been obvious to one of ordinary skill in the art to substitute 4,4'-dichloro-2-hydroxy diphenyl ether as an equivalent alternative. An express suggestion to substitute one equivalent component for another is not necessary to render such substitution obvious."

There are several problems with this rejection. Firstly, not all limitations of claim 21 are taught by the recited references. For example, a maximum of .9 % by weight 2-hydroxy-dipenyl ether of formula (5) is required. A weight ranging from .01 and 5 wt. % of component a) is required. Although Ghosh teach ranges embracing the 0.01 to 5 wt. %, not one of the references teach specific amounts of component a) and k) as none of the reference teach the combination specifically. All words and limitations of a claim must be considered. The Office has failed to consider the particular weight percents claimed for each component a) and k). Thus even if all the cited references are combined, one does not arrive at the present claim 21. All words in a claim must be considered in judging the

patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Furthermore, claim 21 is considerably more narrow than claim 1. Claim 21 almost perfectly reflects the showing in the Declaration. Appellants reminds the Office that even if it were assumed *arguendo* that a *prima facie* case of obviousness has been established in view of the cited art, a *prima facie* case of obviousness can be rebutted by a showing of unexpected results. (See, for example, *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963)). In this regard, it is respectfully submitted that the present specification provides that it has now been found, surprisingly, that when the compound of formula (1) and ether of formulae (5) are combined at the weight ratios claimed that less of each antimicrobial active may be used when combined at lower levels to achieve acceptable antifungal and antimicrobial effects.

Appellants submit that the rejections of claims 1, 2, 4-10, 13-15 and 21 have been successfully rebutted and respectfully request that the rejections be reversed.

Respectfully submitted,

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filed under 37 CFR 1.34(a)

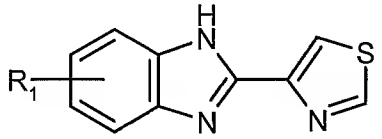
SAL/23033AppealBrief.doc

Enclosures: (8) Claims Appendix, (9) Evidence Appendix, copy of Declaration under 1.132 previously submitted, (10) Related Proceedings Appendix and fee for 2 month extension of time.

(8) CLAIMS APPENDIX

1. (previously presented): A method for the fungicidal treatment of textile fiber material comprising contacting said textile fiber materials in a domestic washing process with a detergent composition comprising

(a) 0.01 to 90 % by weight of a compound of formula (1)

(1) 

wherein

R_1 is hydrogen; or C_1-C_5alkyl

(b) 1 to 80 % by weight of one or more synthetic detergents or of a soap or combinations thereof;

(c) 0-75 % of a builder;

(d) 0-30% by weight of a peroxide;

(e) 0-10 % by weight of a bleach activator;

(f) 0 to 50 % by weight of one or more hydrotropic agents,

(g) 0 to 50 % by weight of an alcohol,

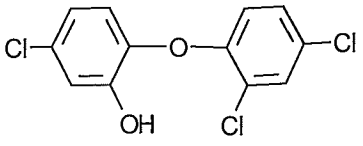
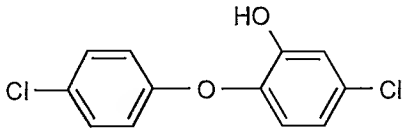
(h) 0 to 80 % by weight of a fabric softening component;

(i) tap water or deionised water ad 100 % and

(k) an antimicrobial agent,

wherein the component (k) is

2-hydroxy-diphenyl ether of formula

(4)  or (5) 

and

wherein said textile fiber materials are treated in normal washing machines and the weight of the textile material to water is from 1:4 to 1:40.

2. (previously presented) A method according to claim 1, wherein

R_1 is hydrogen.

3. (cancelled).

4. (previously presented): The method according to claim 1, wherein the detergent composition comprises

(a) 0.01 to 10 % by weight of a compound of formula (1);

(b) 5 to 70 % by weight of one or more synthetic detergents or of a soap or combinations thereof and/or of a salt of a saturated and/or unsaturated C_8-C_{22} fatty acid,

(f) 0 to 50 % by weight of one or more hydrotropic agents,

(g) 0 to 50 % by weight of an alcohol,

(h) 0 to 80 % by weight of a fabric softening component; and

(i) tap water or deionised water ad 100 %.

5. (previously presented): The method according to claim 1, wherein component (b) is a salt of lauric, myristic, palmitic, stearic, arachidic, behenic, caproleic, dodecenoic, tetradecenoic, octadecenoic, oleic, eicosenoic or erucic acid .

6. (previously presented):The method according to claim 1, wherein the detergent composition comprises

(a) 0.01-5% of a compound of formula (1);

(b) 1-70% of an anionic surfactant and/or a nonionic surfactant;

(c) 0-75% of a builder;

(d) 0-30% of a peroxide; and

(e) 0-10% of a bleach activator.

7. (previously presented): The method according to claim 6, wherein the detergent composition comprises,

(a) 0.01-5% of a compound of formula (1);

(b) 5-70% of an anionic surfactant and/or a nonionic surfactant;

(c) 5-70% of a builder;

(d) 0.5-30% of a peroxide; and

(e) 0.5-10% of a bleach activator and/or 0.1-2% of a bleaching catalyst.

8. (previously presented): The method according to claim 1 wherein the detergent composition additionally comprises at least one enzyme selected from the group consisting of cellulase, protease, amylase and lipase.

9-12. (cancelled).

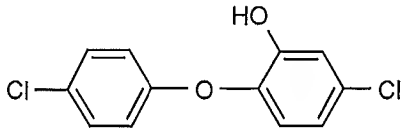
13. (previously presented): The method according to claim 8, wherein the temperature of the water is between 5°C and 40°C throughout the process.

14. (previously presented): The method according to claim 1 in which the textile materials are polyamides, wool or cotton.

15. (previously presented): The method according to claim 1, wherein the detergent composition is used in powder washing formulations, washing pastes, liquid washing formulations, fabric softeners or solid soaps.

16-20. (cancelled).

21. (previously presented): The method according to claim 1, wherein component a) is .01 to 5 % by weight and component (k) is a maximum of 0.9 % by weight 2-hydroxy-diphenyl ether of formula

(5) 

(9) EVIDENCE APPENDIX

Appellants attach a Declaration under 1.132 filed electronically on November 18, 2009 and signed by Dietmar Ochs on October 30, 2009.

CASE 23033

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER RULE 132

I, Dietmar Ochs, a citizen of the Federal Republic of Germany, presently residing in 79650 Schopfheim, Germany, hereby declare:

CREDENTIALS

1. That I was awarded the degree of a Doctor of Natural Science by the University of Tübingen, Germany in 1990;

2. That I have been employed by CIBA Grenzach GmbH (now part of BASF SE) as research chemist in 1995;

3. That I hold presently a position as Head of Development/Technical Service Biocides at Ciba Grenzach, GmbH (now part of BASF SE);

4. That I have been engaged in R&D in the field of biocides in between 1995 and now;

5. That the experiments described in the following have been carried out under my supervision:

COMPARATIVE PROCEDURES

Composition of AATCC Liquid Detergent

LAS	12.1%
Linear Alcohol Ethoxylate	8%
Propane Diol	8%
Citric Acid	1.2%
Fatty Acid Ethoxylate	4%
NaOH	4%
Water	Balance

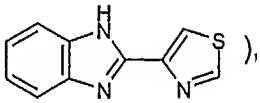
Tested microorganisms: Escherichia coli ATCC 10536

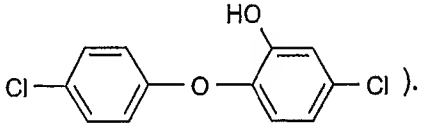
Chaetomium globosum ATCC 6205

Washing conditions (common standard Lini-Test conditions)

Detergent:	25 gram liquid detergent / Kg fabric
Liquor ratio:	1:5
Fabric:	20 g Cotton
Washing time:	20 minutes
Washing cycle:	1
Rinsing:	once during 30 seconds under running drinking water

Drying:	at 50-60°C
Contact time:	Immediately after contamination, after 6 and 24 hours at 37°C (bacteria)
	Immediately after contamination and after 1 week at 29°C (fungi)
Nutrient medium:	Caso agar (CA) with neutralizer (bacteria and yeast)
	Sabouraud agar (fungi)
Neutralizer:	Phosphate buffer containing 1% Tween 80 + 0.3% Lecithin
Diluent:	Sterile deion. water
Incubation of plates:	24 hrs at 37°C (bacteria)
	4 days at 29°C (fungi)

Additives: Tinosan® Plus FG (active ingredient: ),

Tinosan® HP 100 (active ingredient: ).

Principle of Testing

Washed swatches with a diameter of 4 cm were inoculated with 500 µl of the bacterial or fungal suspension (= about ~ 10^5 cfu / sample), placed in a humid chamber and incubated at 37°C (bacteria) or 29°C (fungi). Each sample and contact time was tested twice.

Immediately after inoculation, after 6 and 24 hours at 37°C (bacteria) and immediately after contamination and after 1 week at 29°C (fungi), the samples were given in a sterile bag (Stomacher bag 80) containing 10 ml phosphate buffer 0.07 molar, pH 7.4 containing 1% Tween 80 and 0.3% lecithin and treated in the Stomacher for 1 minute. After shaking 1:10 dilutions until 10^{-4} in sterile deionised water were made.

From the undiluted and from the dilutions, samples of 100µl were plated out by the mean of a spiral plater. After incubation the surviving colonies were counted and reported in a table as cfu / sample.

Results (cfu / sample / log reductions)

Test strain -->	Escherichia coli ATCC 10536			
	0'	After 6 hrs	After 24 hrs.	Log red after 24 hrs *
AATCC Standard liquid detergent containing 0.2% TINOSAN® Plus FG	2.9×10^5 2.7×10^5	$> 10^6$ $> 10^6$	$> 10^6$ $> 10^6$	< 1
AATCC Standard liquid detergent containing 0.6% TINOSAN® HP 100	2.9×10^5 2.7×10^5	1.0×10^3 9.1×10^2	< 100 < 100	> 5
AATCC Standard liquid detergent containing 0.1% TINOSAN® Plus FG + 0.3% TINOSAN® HP 100	2.9×10^5 2.7×10^5	2.1×10^3 1.7×10^3	4.6×10^3 3.8×10^3	4.3
AATCC Standard liquid detergent without active (placebo)	2.9×10^5 2.7×10^5	1.5×10^7 1.4×10^7	6.9×10^7 8.2×10^7	---

* calculated versus placebo (sample 4) after 24 hours at 37°C

O/n culture: Escherichia coli ATCC 10536 2.6×10^9 / ml 1:1000 0.5ml / 2 discs

Test strain -->	Chaetomium globosum ATCC 6205		
	0'	After 1 week	Log red after 1 week *
AATCC Standard liquid detergent containing 0.2% TINOSAN® Plus FG	2.0×10^7 1.7×10^5	5.1×10^4 6.6×10^4	1.4
AATCC Standard liquid detergent containing 0.6% TINOSAN® HP 100	2.0×10^7 1.7×10^5	4.2×10^5 2.3×10^5	< 1
AATCC Standard liquid detergent containing 0.1% TINOSAN® Plus FG + 0.3% TINOSAN® HP 100	2.0×10^7 1.7×10^5	1.0×10^5 1.1×10^5	1.1
AATCC Standard liquid detergent without active (placebo)	2.0×10^7 1.7×10^5	1.4×10^6 1.3×10^6	---

* calculated versus placebo (sample 4) after 1 week at 29°C

Chaetomium globosum ATCC 6205 6.0×10^6 / ml 1: 10 0.5ml / 2 discs

CONCLUSIONS

6. These results clearly indicate the broad spectrum of antimicrobial activity, in particular a simultaneous high activity against bacteria and fungi of a combination of 0.1% TINOSAN® Plus FG and 0.3% TINOSAN® HP 100 in a liquid detergent even at lower biocide concentration as compared to the individual ones.

7. These results are important because the instantly claimed method allows formulating a detergent for use in a domestic washing process which does not only clean the textile fiber material but also prevents or reduces affection with bacteria and fungi.

FINAL STATEMENT

I, Dietmar Ochs, declare further that all statements made herein of personal knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 30 day of Oct., 2009.

Dietmar Ochs

Dietmar Ochs

(10) RELATED PROCEEDINGS APPENDIX

As the appellants are not aware of any other related proceedings, no copies of decisions rendered by a court or the board are attached.